one  $13\frac{1}{2}$ -ounce can to 5 gallons of water  $^{7}$ 

For carriers returning from other foreign countries, the approved disinfectant shall be a disinfectant permitted for use under §71.10, part 71 of this chapter.

[42 FR 28990, June 7, 1977. Redesignated and amended at 45 FR 86413, Dec. 31, 1980; 53 FR 51746, Dec. 23, 1988]

## §91.19 Inspection of ocean vessels prior to loading.

It shall be the responsibility of the owners or the masters of an ocean vessel intended for use in exporting livestock to present the vessel to an inspector at a United States port of embarkation or at the descretion of the Administrator, upon request of the exporter, transporting company, or their agent, at a foreign port, for an inspection to determine if the fittings aboard the vessel are in compliance with the provisions of this part. A notarized statement from an engineering concern shall be required to certify to the rate of air exchange in each compartment. Such notarized statement shall be required upon first use of such vessel: Provided, That such notarized statement may again be required by the Administrator if substantive changes in fittings aboard the vessel have been made since the vessel was last certified.

[42 FR 28990, June 7, 1977. Redesignated at 45 FR 86413, Dec. 31, 1980, and amended at 57 FR 23047, 23048, June 1, 1992]

## §91.20 General construction.

A variety of construction materials such as wood, metal plate, or pipe may be used for stalls, crates, or pens aboard ocean vessels. Pipe fittings have the advantage of smooth surfaces, easy maintenance, long range economy and spaces between pipe rails to allow for feeding, watering, cleaning and better ventilation. Material used for

stalls, crates, or pens shall be properly formed, closely fitted, and rigidly secured in place. Special care shall be taken to design and finish all edges, welds, and hardware that are accessible to animals. A combination of wood and steel pipe or other steel profile construction may be accepted if the construction complies with the regulations in this part. Where the sides of pens are adjacent to the ship's sides which have steel casing, frames, stays or similar fittings, the carrier shall cover these profiles with wooden battens of at least 2 inch thick lumber or plywood of similar strength to prevent animals from injury.

[42 FR 28990, June 7, 1977. Redesignated at 45 FR 86413, Dec. 31, 1980]

## §91.21 Ventilation.

Each underdeck compartment on which animals are being transported aboard an ocean vessel shall be equipped with a system of mechanical ventilation that will furnish a complete change of air in each compartment every 2 minutes when deck height8 is less than 8 feet and every 21/2 minutes when the deck height8 exceeds 8 feet. Spare motors and fans shall be available on board, for replacement or repair of the ventilation system during the voyage. A spare motor and fan of an approved type in working order shall be aboard the vessel for each type of motor or fan used. Net pen space in any compartment shall not exceed 80 percent of the deck area.

 $[42\ FR\ 28990,\ June\ 7,\ 1977.\ Redesignated\ at\ 45\ FR\ 86413,\ Dec\ 31,\ 1980]$ 

## §91.22 Protection from heat of boilers and engines.

No animals shall be stowed along the alleyways leading to the engine or boiler rooms unless the sides of said engine or boiler rooms are covered by a tongue and groove tight sheathing producing a 3-inch-wide air space except that on ships powered with internal combustion engines this sheathing may not be

<sup>&</sup>lt;sup>7</sup>Due to the extreme caustic nature of sodium hydroxide solution, precautionary measures such as the wearing of rubber gloves, boots, raincoat, and goggles should be observed. An acid solution such as vinegar shall be kept readily available in case any of the sodium hydroxide solution should come in contact with the body.

<sup>&</sup>lt;sup>8</sup>Deck height is the height from the ceiling to the floor